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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,517	12/05/2003	Garrett J. Young	245233US25	7825
22850	7590	03/16/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			PHILOGENE, HAISSA	
1940 DUKE STREET			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22314			2828	

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/727,517

Applicant(s)

YOUNG, GARRETT J.

Examiner

Haissa Philogene

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-6, 10-16 and 20 is/are rejected.
- 7) ☐ Claim(s) 7-9 and 17-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 6, 10-12, 15, 16 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Mueller et al., Pub. No. 2004/0052076.

Mueller discloses in Fig.1 a dynamic color mixing device comprising:

(a) at least one light emitting diode (LED) unit each (as shown) including:

(a1) a first LED of a first color (red)(104A);

(a2) a second LED of a second color (green)(104B); and

(a3) a third LED of a third color (blue)(104C);

(b) a controller(102) configured to supply respective driving signals to each of said first LED and second LED individually, said respective driving signals individually controlling relative intensity outputs of said respective first LED and second LED (page 7, Col.1, paragraph [0163], lines 2-8; paragraph [0164], lines 2-8; and Col.2, paragraph [0166], lines 11-16); wherein said controller (102) individually frequency or amplitude modulates the respective driving signals supplied to each of said first LED, second LED, and third

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LED to individually control their relative intensity outputs (see also page 7, Col.1, paragraph [0164], lines 6-12, and Col.2, paragraph [0165], lines 19-25).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al., in view of Ryan, Pub. No. 2004/0120156.

As per claims 3 and 13 Mueller discloses the claimed invention substantially as explained above except for temperature regulators configured to maintain a desired temperature at each of said first LED, said second LED, and said third LED. Ryan discloses in Fig.3 a dynamic color mixing device (see page 3, col.2, paragraph [0051], lines 3-5) having temperature regulators 9 (see page 4, col.2, paragraph [0063], lines 1-2) configured to maintain via electronics control module 8 a desired temperature for light emitting array 10 which may include any color or combination of LEDs (see also page 4, col.2, paragraph [0062], lines 1-3, paragraph [0067], line 1-page5, col.1, lines 1-5).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the temperature regulators as taught by Ryan into the Mueller type device, because it would ensure a cooled temperature of the LEDs based on thermal removal during operation, thereby improving the cooling efficiency of the device.

As per claims 4 and 14, Mueller in view of Ryan discloses the claimed invention substantially as explained above. Further, Ryan discloses in Fig.6 each temperature regulator comprising a thermoelectric device 6 (see also page 2, col.2, paragraph [0029] lines 3-5 and paragraph [0030], lines 3-5).

### ***Allowable Subject Matter***

Claims 7-9 and 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to disclose "a temperature sensor configured to sense a temperature at at least a portion of said at least one LED unit, and wherein said controller further monitors the sensed temperature of said at least one LED unit and integrates a current supplied to said at least one LED unit, and controls the amplitude modulation based on the monitored temperature and integrated current" (claims 7 and 17); and "a color sensor array configured to sense colors of light output from at least a portion of said at least one LED unit; and wherein said controller is further configured to control the amplitude modulation based on the sensed colors (claims 9 and 19).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mueller et al., Patent No. 6,016,038 ; Lys et al., Patent No. 6,211,626.

**Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haissa Philogene whose telephone number is (571) 272-1827. The examiner can normally be reached on 6:30 A.M.-6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MinSun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hp

Haissa Philogene  
Primary Examiner  
1/19/10 2828 ✓